Minimum DB seq length: 20000000000 oM protein : protein search, using sw model Database : Post-paccessing: Minimum Match 0% Total number of hits satisfying chosen parameters: Sourched: scoring table: зефионее: Perfect score: october 26, 2001, 16:40:50 : Search time 22.8 Seconds (without all doments) and update 5/500 US 109-494 585-2 THTB T MAPLAR VON FAMALIANIAN OVER THE TEMPVOLEN VERSON BLILDRYT 211 93435 seqs, 34255486 residues Gapop 10.0 , Gapext 0.5 PL/OSHM62 SwissProt\_39:\* Maximum Match 100% Listing first 45 summaries Copyright (c) 1998 - 2000 Compugen Edd. 94435

Prod. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

37 271 c	275. () 275. ()		787_ R7	2∺	•						20 100.5	19 (01.5			16		1.1		12 3	_	101	, T	F 424.5	7 442.5	6 705.5	5.80f	4 7	3 774	2 774	1 774	No. Score	Husall	
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posses taurus	FGF2_BOVIN	_	155	18.7	209	45
PO9038 hollo Sapten	FGF2_HUMAN	_	155	18.8	210	44
PO3968 bos lantus	FGF1_BOVIN	_	120	21.0	234.5	254 140
P19596 dallus dall	FGF1_CBJCK	_	155	21.8	243.5	42
POS230 homo sapten	FGF1_HUMAN	,	155	22.5	251	41
FINDS BIR SHOLD	FGF1_MOUSE	_	155	22.8	254.5	40
P20002 sus scrola	PGF1_PTG		152	8 8	63 UR UR	39
PHI403 muschin	FGF4_MOUSE	_	202	22.9	256	38
	FOF LMESAU	_	155	22.9	256	37
	VINGX TABLE		192	63 44 53	268.5	36
	FGF4_BOVIN	_	206	24.1	269	3.5
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## ALIGNMENTS

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-i- DISEASE THE CONTINUOUS OVEREXPRESSION OF GARS MAY LEAD TO MALLONANT CELL GROWTH CANCED BY AR ACTORYLME LOOP.  1 SIMILARITY BELONGS TO THE HEPAPIN-BINDING GROWTH FACTORS FAMILY.  1 SATARASE: REME FALE Systems of the fourth for the terms of the systems.com/cyt_cat/14(9).html".  WWW-"http://www.rindsystems.com/cyt_cat/14(9).html".  This SWISS-PROT entry is copyright. It is produced through a collaboration for two-ep the swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on Its	-! SURGELDIJAN LOCATION: SECRETED! SURGELDIJAN LOCATION: SECRETED!- FISSUE SPECIFICITY: GLIAL CELLS!- PTM: THREE MOLECULAR SPECIES WEB 1530HD (10 KFA) 19 KDA AND 25 -!- PTM: CLEAVED AT LED! 3, VAL-12 AND SEK-33 RESPECTIVELY. THE SMALLER ONES MIGHT BE PRODUCTS OF PROTEDLYTIC DIGESTION. EDRTHERMORE, THERE MAY HE A FUNCTIONAL SECUENCE IN THE 30 EDA SPECIES WHICH IS UNCLEAVABLE IN THE SECRETION STEP.	do T., Kurokawa T.:  do T., Kurokawa T.:  10	EROUBNOE FROM N.A.  SEQUENCE FROM N.A.  TISSHE Porcskin;  MEDLINE 93309459; PubMed=8321227;  MEDLINE 93309459; PubMed=8321227;  MEDLINE 93309459; PubMed=8321227;  MEDLINE 9309459; PubMed=8321227;  Matsumeto S., Mendo T.,  Matsumeto S., Mendo T.,  Matsumeto S., Mendo T.,  Medline Pubmed Basic Pubmed Basic Matsumeto E., Sasada R.,  MEDLINE 93155105; Pubmed Basic Matsumeni E., Sasada R.,  MEDLINE 93155105; Pubmed Basic Matsumeni E., Sasada R.,  Medline Pubmed Pubmed Basic Pubmed Basic Pubmed Pubmed Pubmed Pubmed Pubmed Basic Pubmed Bas	RESULT 1  PREF9_HUMAN STANDARD; PRT; 208 AA.  TD FGF9_HUMAN STANDARD; PRT; 208 AA.  TD FGF9_HUMAN STANDARD; PRT; 208 AA.  TD FGF9_HUMAN STANDARD; PRT; 208 AA.  DT 01-UT-1993 (Rel. 26, Created)  DT 01-CT-1994 (Rel. 30, Last sequence update)  DT 15-JUL-1998 (Rel. 30, Last sequence update)  DE GLIA-ACTIVATING FACTOR PRFCURSOR (GAF) (FIBROHLAST GROWTH FACTOR 9)  DE (FGF9) (HBGF-9).  GN FGF9.  GN F

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RESULI 2
FGF9_MOUSE
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MEDLIHE 95385801, FubMod-7656983;
Seo M., Noquehi K.;
"Retinoic acid induces gene expression of tibroblast growth factor-9
                                                                                                               STRAIN-FVB: MULLINE-96139512; PubMed 8576175, santos-yeampo S., Colvin J.S., Chellaiah A.T., Ornitz D.M., "Expression and biological activity of mouse fibroblast grotactor-9.";
                                                                                                                                                                                                                                           Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Enteleostomi;
Mammalia; Eutheria: Rodentia: Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                       01-0CI-1996 (Rel. 34, Created)
01-0CI-1996 (Rel. 34, Last sequence update)
01-NOV 1997 (Rel. 35, Last annotation update)
GLIA-ACTIVATING FACTOR PRECURSOR (GAF) (FIBRORLAST GROWTH FACTOR-9)
                                                                                                                                                                                               SEQUENCE FROM N.A.
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Eukaryota: Metazoa; C
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P54130;
                                                            SEQUENCE FROM N.A.
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InterPro: IPR002348; ...
Pfam: PF00167; FGF; 1.
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                                                                                              Biol. Chem. 271:1726-1731(1996).
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                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
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70.6%;
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Pred. No. 1.8e-65;
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S -> A (IN FGE. 2).
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FGF9\_RAT

FGF9\_RAT P36364;

STANDARD;

208 AA

01-JUN-1994 (Rel. 29, Created) 01-OCT-1994 (Rel. 30, Last sequ 01-NOV-1997 (Rel. 35, Last appro

30, last sequence update, 35, Last annotation update)

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Matches 149;
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PRINTS: PR00263; HBGFFGF.
PROSITE: PS00247; HBGF_EGF; ].
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1- FUNCTION: MAY HAVE A ROLE IN GLIAL CELL GROWTH AND DIFFERENTIATION OF DURLING DEVELOPMENT, GLIOSIS DURLING REFAIR AND RESERVENTIATION OF BRAIN TISSUE AFTER DAMAGE, DIFFERENTIATION AND SURVIVAL OF NEURONAL CELLS, AND GROWTH STIMULATION OF GLIAL TUMORS.

1- SUBCELLULAR LOCATION: SECRETED.
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                                                                                  178 GARSKRHOKETHELPHEVOPERVEELYKDLL 208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR002348; -.
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                                                                                                                                                                                                                                                                        118 YIGMNEKGHLYGSEKLISECTFREGEEENWYNTYSSNIYKHGDJGKRYFVALNKDGFPRD 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-96192599; PubMed=8619928;
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                                                                                                                                                                                                                                                                                                                                V Match 69.3%; Score 774.5; DB 1 [Local Similarity 70.6%; Pred. No. 1.8e-65;
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GLIA-ACTIVATING FACTOR.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Kattus norvegious (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISSUE Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Giyeoprotein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Growth Lactor; bitterentiation; Mitoden; Heparin-binding;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSTE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRINTS: PROOZ62: HEGFFGF
PRINTS: PROOZ63: HEGFFGF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          InterPro: IPR002448;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Interfro; IPk002209;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HSSP: Pu5230; 2AXM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL: 014839; BAA03573.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Molecular cloning of a novel cytokine cDNA encoding the ninth member
                                                                                                               178 CARSERIQEL OILLERPRISERVESTYREEL 200
                                                                                                                                                                                                                              PAL ANGESTIC MAALETEENAMENTEENEMENTEEREN ALTONTTEENEMENTEEREN 511
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or
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | MAPLAEVGGFLGGLEGLGQQVGSHFLLPPAGERPPLLGERRSAAERSARG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FUNCTION: MAY HAVE A ROLL IN SILAL CELL CHEMTH AND BITTLEBRITATION LOKING DIVELS THEN DAMAGE, DIFFERENTIATION AND SURVIVAL OF MUDICINAL CELLS, AND CHEMTH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PIM: N GLYCOSYLATED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUBCELLULAR GOODTON: SECRETED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY, HIBORGS TO THE BEPARTH BINDING GROWTH PACTORS FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ·ACTIVATINI IACTER PREDIREGE (SAF) (FIBRIELAST IEDWIH PACTOR 9)
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                                                                                                                                                                                                                                                                                                                                                                           208 AA; 23413 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           %9.3%; Score 774.5; DB 1; Length 208;
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N LINKED (GLONAC. . .)
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Rest Local
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01-NOV-1997 (Rel. 35, Last annotation update)
GLIA-ACTIVATING FACTOR ERRECURED (CAF) (FIFFOREAS) GROWTH MACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PGF9_XENLA
Q91875;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Xenopus laevis (Atrican clawed from)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "XFGF-9: a new fibroblast growth factor from Xenopus embryos.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Song J., Slack J.M.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE-97006698; PubMed 8853991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID: 8355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Xenopodinae: Xenopus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (FGF-9) (HBGF=9) (XEGF-9).
                                                                                                                                                                                                                                                                                                                                                                  Glycoprotein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam; PF00167; FGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HESP; P05230; 2AXM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entities requires a license agreement (See http://www.or.send.an.email to licensewisb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the European Bioinformatics Institute. There are no restrictions on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              between the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROF entry is copyright. It is produced through a collaboration -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -1- FUNCTION: MAY HAVE A ROLE IN MUSCLE DEVELOPMENT AND NEURAL DIFFERENTIATION, HAS NO SPUSIFIC ROLE IN ANTEROPOSITEFIOR
                                                                                                                                                                                                                                                                                            SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                  PROPEP
                                                                                                                                                                                                                                                                                                                                                                                 Growth factor; Differentiation; Mitogen; Heparin-binding;
                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE: PS00247; HBGF_FGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                          PRINTS; PR00263; HBGFFGF
                                                                                                                                                                                                                                                                                                                                                                                                                                       PRINTS; PR00262; ILIHBUF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JnterPro; IPR002348;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR002209;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL: U47622: AACS9436.1; -.
               118 YIGMNDKGELYGSEKLTSECTEKEÇFELNWYNTYSSMIYKHODTORKYEVALAKDOTERO 177
                                                      56 BHLNGILERROLYCKTGEHLEITTERSTEGGERGDIRRCGILEFTEIAVELVASIGYVESGL 115
                                                                                        58 AHLHGILKKKOLYCKTGFHLØILÞDØSVØGTKODHSLFGILEFISVAVGLVSIKGVÞSGL 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE SPECIFICITY: MATERNAL TRANSCRIPT IS FOUND MAINLY IN THE ANIMAL HEMISRHERE, ZYGOTIC TRANSCRIPT IS FOUND ABOUND THE BLASTOPHER AND IN THE LATE GASTRULA STAGE, IN THE DEVERAL PART IN LATER STAGES IT IS FOUND ALONG THE DARSAL PART AND HEAD RECION. DEVELOPMENTAL STAGE: THE MATERNAL PROTEIN IS DESERTED UP TO THE BLASTRULA STAGE BUT DECLINES BY THE EARLY GLASTRULA, ZYGOTIC EXPRESSION STAGES AT AROUND EARLY GASTRULA; THE LEVEL OF EXPRESSION PRACHED AT STAGE IS DERSISTS DURING NEUROLA AND TAILIBUD STAGES.
                                                                                                                                                                1 MAPLAEVÖGFLÖGLEGLÖQOVGSHFLLIPPAGERPPLLGEKKSAAEKSAKG--
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                                                                                                                           MAPLGEVGNYFG--- - VQDAVSEGNVFYLQVDTFVLLSDHMSHHSEAGGLFRGSAVTDL 55
Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           non-profit
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                                                                                                                                                                                                                                                                                            209 AA; 23662 MW;
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70.1%;
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                                                                                                                                                                                                       16; Mismatches
                                                                                                                                                                                                                      Score 765; DB 1;
Pred. No. 1.4c 64;
                                                                                                                                                                                                                                                                                              GLIA-ACTIVATING FACTOR:
N LINKED (GLCNAC: ...) (
P. 26CRP229747FCFBF CRC64
                                                                                                                                                                                                                                                                                                                                                    BY SIMILARITY
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Matches 184: Conservative
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PRINTS: PR00263: HBGFFGF.
PR0811E: PS00247: HBGF_FGF: 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      between the Swiss institute of Bioinformatics and the EMBL outstati
the European Bioinformatics Institute. There are no restrictions on
use by non-profit institutions as long as its content is in no
modified and this statement is not removed. Usage by and for common
                                                                                                                                                                                                                                                                                                                                                                                                          Growth Lactor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entitles requires a license agreement (See http://www.isb-sib-chgangonnoco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam; PF00167; FGF; 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro: IPR002209;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMbi, Ab000391; BAAZ4956.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   or send an email to licensewish sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Biochem. Biophys. Res. Commun. 243:148-152(1958).
-! FUNCTION: INDUCES HEPATOCELIULAR PROLIFERATION. HAS NO BIOLOGICAL EFFECT ON THE HEART (BY SIMILARITY).
-!- SUBCOLLULAR LOCALION: SECRETED (BY SIMILARITY).
-!- SIMILARITY: BELONGS 15 15 The HEPAKLIN-BINDING GROWTH FACTORS FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Structure and expression of a novel member, FGF-16, on the fibroblast growth factor family.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-JUL-1993 (Rel. 38, Created)
15-JUL-1999 (Rel. 38, Last sequence update)
01-oct-2000 (Rel. 40, Last annotation update)
FIRK/BLAST GROWTH FACTOR-16 (FGF-16).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Miyako A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota: Metazoa; Chordata; Cramiata, Vertebrata; Euteleostomi;
179 AKSKEHÇKETHELEREVDEERVELLYKELLEY 210
                                  115 IGMNERGELYGSKKLIKEGVEREGFEENWYNTYASTLYKHSDSERGYYVALNKDGSPPEG 174
                                                                       114 LOMNORGELYGSFKLISECIFREGFEENWYNTYSSNIYKHGDYGREYFVALNKDGTPEDC 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE 98139883; FubMed=9473496;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Miyake A., Kenishi M., Martin F.H., Hernday N.A., Guaki K.,
Wamamoto S., Mikami T., Arakawa T., Itoh N.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE-Heart,
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                                                                                                                   55 HLKGILKRRGLYCKIGFHLEIFPNGTVHGTKHDHSRFGILBFISLAVGLISIRGVDSGLY 114
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    178 CARSKERCKFFUFTPPDVDFEEVFELLKELL 208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       116 YLOMNEKORLYCSEKTYGYCYTEDQYTEHWYWTYSSWIYKHALLAWYYYVALMKLYLYPD 175
                                                                                                                                                                                                                                        4 LAEVGGFLGGLE----GLGQQVGSHFLLPPAGFEPPLLCEPPSAAE-ESAPCGFGAAQLA 58
                                                                                                                                        MAEVGGVFASLDWDLHGFSSSLGN----VPLADSPGFLNERLGQTEGKLQRGSP--TDFA 54
                                                                                                                                                                                                                                                                                                                                                                                         207 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                       63.4%; Score 708.5; DB 1; Length 207; 63.2%; Pred. No. 2.6e-59;
                                                                                                                                                                                                                                                                                                                                                                                           23759 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                 78
                                                                                                                                                                                                                                                                                     27; Mismatches
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                                                                                                                                                                                                                                                                                 Indels 11; Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FGFG_RAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Growth factor
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PRINTS: PR00263; HBGFPGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE: PS00247; HBGF_FGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro; 1PR002209;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBI; AB002561; BAA24947.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           or send an email to licensedisb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  entitles requires a likener agreement (See http://www.isb.sib.ch/agreement/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Miyake A., Konishi M., Martin F.H., Hernday H.A., Ozaki K.,
Yamamoto S., Mikami T., Arakawa T., Itoh N.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-JUL-1999 (Rel. 38, Last sequence update) 01-2CT-2000 (Rel. 40, Last annotation update) FIB-OBLAST GROWTH FACTOR-16 (FGF-16).
119 LOMNEKGELYGSEKLISECIEPEQEEENWYNTYSSNIYKHGDEGRRYTVALNKDGTPRDG 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              growth factor family.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Structure and expression of a novel member, FGF-16, on the fibroblast
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=98139883; PubMed=9473496;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN-WISTAR: TISSUE-Heart
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            - i - FUNCTION -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murimae, Kattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota: Metazoa:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                y Match 63.1%; Score 705.5; DR 1;
Local Similarity 62.7%; Pred. No. 5.16-59;
hos 133; Commercative 28; Mismatches 40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-JUL-1999 (Rel. 38, Created)
                                                                                                                                  59 HURGTI PPPQLYCPTCFHLQILPDCSVQGTRQDHSLFGILEFISVAVGLVSIRGVDSGLY 118
                                                                                           55 HERGILRERGIZORTGEHLETEPNGTVHGTRHDHSREGILEFISLAVGLISIRGVDSGLY 114
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                                                                                                                                                                                                                                                                         1 MAEVGGVFASLDWDLQGFSSSLGN----VPLADSPGFLNERLGQLEGKLQRGSP--TDFA 54
                                                                                                                                                                                                                                                                                                                                                                4 LAEVGGELGG----LEGILGGQVGSHFILLPPAGEEPPLLGPPPSAAF-RSAEGCPGAAQLA 58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUBCELLULAR LOCATION: SECRETED.

TISSUE SPECIFICITY: IN ANULT, PREPARED EN REALN, LUNG, LIVER, KIDNEY THE CARDIAG MYCOTYTES, NOT DETROTED IN BRAIN, LUNG, LIVER, KIDNEY AND WHITE ADIPOSE TISSUE IN MARRYOS, PERFORMANTIY EXPELSION IN THE BROWN ADIPOSE TISSUE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIMILARITY: BELONGS TO THE HEFARIN BINDING GROWTH FACTORS FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEVELOPMENTAL STAGE: EXPRESSION IN BROWN ADIPOSE TISSUE DECREASED GREATLY AFTER BIRTH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBRYONIC BROWN ADIPOSE TISSUE.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PF00167; FGF;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Res. Commun. 243.148 152(1998)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-LINKED (GLCNAC. . .) (POTENITAL).
'. IC7All08BA3164BC CRC64;
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115 LGMNERGEI FÖSKKLITREGVEREQFEENWYNTYASTLYKHSDSERQYYVALNKDOSPREG 174

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01-FEB-1996 (Ref. 43, Last sequence update)
01-WM-1997 (Ref. 45, Last annotation update)
FIBROBLASI GROWTH FACTOR 4 PRECNESSE (PGF-4) (HBFE-3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             this SWISS-PROT entry is copyriable. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its concept is in no way modified and this statement is not compared. Usage by and for commercial
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MEDILINE-95309122: Pubbed 7789270;
Mahmenod K., Kieter P., Garbrie S., Diekson C., Mason I.;
"Multiple roles for PGF-3 during cranial neural development in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N. P. Laxlin Work;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Archosantia: Aves: Neomnathae: Gallitormes; Phasianidae; Phasianimae:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gallus (c'hicken).
Eukaryota: Metazoa: c'hordata: c'ioniata: Vertebrata: Euteleostomi:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FIRST OR FIRST.
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or send an email to license-isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE: PS00247; HRGE_FGE: 1.
Growth fuctor; Mitogen; Signal: Glycoprotein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HSSP; POYOTH: IBPC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRINIS: PRODZES: BECFFOR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro: IPkou2348;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        y Match (0.6%; Score 442.5; DB 1; Length 220; Local Similarity 41.6%; Pred. No. 5e 25;
182 PRVLD 186
                                                                                                      152 PRPVD 156
                                                                                                                                                                                                       12.1 THE CALL STORMS OF SMALALMY OVER THE CONTRACT STORMS THE STREET THE TAIL THE STREET THE STREET
                                                                                                                                                                                                                                                                                                        142 OFSERWYNTYCSRUYKIGLEIG
                                                                                                                                                                                                                                                                                                                                                                                                         62 GOWLD DEFINANCIAL LITTLE FAVOR OF LATER OF LAMBERCE LYASSER WITH CHECKE 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          82 DOSVQOTRQDESLECTLEFTSVAVCLVSTRGVDSGLYLGMNDKGELYGSEKLTSECTFRE 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11 LLPEPRVPAATASP-----RAPRDAGGRGG----VYEHLGGAPRRKKLYCATKYHLQIHP 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26 LLP -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservation
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N LINKES (SECUNCT. . .) (ISCENETAL).
C BISEA HEESSIGGES CROSS;
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Pest [Seal Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             High-part V. Yamasaki M.: Itoh N.:
"The rat FGP-5 mRHA parlant generated by allocative splicing encodes a novel truncated form of FGP-5.";
High-him Histories Asset Park 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P48807;
01-FEB-1996 (Rel. 33, Created)
01-RDV-1997 (Rel. 35, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              use by non-profit institutions as long as its content is in-modified and this statement is not removed. Usage by and for co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss institute of Bioinformatics and the EMBL outstation the EMBL outstation. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Biochim, Biophys. Acta 1306:31-33(1996).
-!- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mammalia; Entheria; Rodentia; Sciuroquathi; Muridae; Murimae; kattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FIBROBLAST GROWTH FACTOR-5 PRECURSOR (FGF-5) (HBGF-5).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; D64085; BAA10966.1; -. HSSP; D09038; 1BFC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIJAH 96201703; PubMed 8611621;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN-WISTAK;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rattus norvegious (Rat)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FGF5_KAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRINTS; PR00263; HABGEFGE.
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                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                     Transforming protein; Oncogene; Growth Lactor; Mitogen; Signal. SIGNAL, 1 17 POFENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00247; HBGF_FGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pfam; PF00167; PGF;
                                                                                                                                                                                                                                                                                                                                                                                                                        CHAIN
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14d - OdoobandahdisAHÖRAASASA daVASdaN 161
                                 170 NKDGTPRDGA--RSKRHQKFTHFLPRPVDPERVPEL 203
                                                                  131 TRGVESNKELAMSKKUKLHASAKEHASKEKEKEQEMSYKCYASATEKEEKHUEUNYVAL 150
                                                                                                   110 LEGVESGLYLGMNÜRGELYGSERLISEGTFREGFELNWYNTYSSNITKEGFTCRRYFVAL 169
                                                                                                                                      72 SEHSSFOWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGS-HEASVLSILEIFAVSGGIVG 130
                                                                                                                                                                     59 HLHGIL-----RREQLYCEF--GFHLQILDDGSVQGIRQDHSLEGILEFISVAVGLVS 109
                                                                                                                                                                                                        12 SHLLLSADAZOEKBLTPFGQPAPPINDGBSGGSFGISSALFASSSASSPVAASFGSQGS6-71
                                                                                                                                                                                                                                           23 SHPLL--PPAGER- -----PP-----LLGER-------RSAAERSARGGPGAAQLA 58
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6<u>5</u>
                                                                                                                                                                                                                                                                                                                                                                                                                        266
                                                                                                                                                                                                                                                                                              29.0%; Score 324.5; De 1; Leagth 266; 39.8%; Pred. No. 3.1e-23;
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FGF3\_XENI.A ID FGF3\_X AC P36386

FGF3\_XENLA P36386;

STANDARD;

PRT;

237 AA

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FGF5_HUMAN
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PROSTE: PS00247: HBGF_FGF: 1.
Growth factor: Milosen: Signal: Glycoprotein.
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InterPro: [PR002348, -. 
Plam: PF00167; PGF; ].
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE 93048831; PubMed-1425349; Idamabill D., Isaars H.V., Olrse M.J., Peters C., Sidek J.M.W., "Developmental expression of the Xenopus int-2 (FGF-3) gene: activation by mesodermal and neural induction.";
                                                                                                                                   SEQUENCE
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-1- FUNCTION: POTENT MITCHEN AND TRANSFORMING AGENT
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01-JUN-1994 (Rel. 29, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation update)
FIBMOBLAST GROWIH FACTOR-3 PRECUPSOR (FGF-3) (BBGF-3) (INT-2).
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Amphibia: Batrachia: Anura: Mesobatrachia: Pipoidea: Pipidae:

    -!- SIMILARITY: BELONGS TO THE HEFAKIN-BINDING GROWIE FACTORS FAMILY.

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                                                                                                                                                                                                                                                                                                                87 PLEQUESTFOLLERISVAVBLVSIKGVBSGLYLGMNDKGELYGSEKLISECIFKEQFEEN 146
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237 AA; 26984 WW,
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      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     237
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                                                                                                                                                                         ----kker-välinkligherdgarskrhqkffhfherpvd 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29; Mismatches
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7. EDD31B0893567AZD CRC64;
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   PRT:
   268 AA
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MIM 165190;
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EMB.; M23534; AAB60699.1; JOINED.
EMB.; M23535; AAB60699.1; JOINED.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CHAIN
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Pfan; PF00167; FGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Zhan X., Bates B., Hu X., Goldfarb M.;
"The human FGF-5 oncogene encodes a novel protein related fibroblast growth factors.";
Mol. Cell. Biol. 8:3487-3495(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Transforming protein; Oncogene; Growth factor; Mitogen; Signal.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        or send an email to licensewisb-sib.ch).
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MEILINE 91045929, PubMed 1700424;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMB.; M37825; AAB06463.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Haub O., Drucker B., Goldfarb M_{\odot}; "expression of the murine fibroblast growth factor 5 gene in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pukaryola; Metazca; Chordata; Craniata, Vertebrata, Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
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01-FEB-1996 (Rel. 33, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation update)
01-BEROBLAST GROWTH FACTOR-5 PRECURSOR (FGF-5) (HBGF-5).
FGF5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDILINE-89096942; PubMcd 3211147;
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94 PYCTGEHLQTYDDGKVRGSHEARHG SVLETEAVSQGTVJINGVESNKELARSKKGKLHA 152
                                                   6.71 GXTACARANGTAR STAN 11SA CAVASTRATION CHICALORICAN SOCIETO INDIRECTOR CA
                                                                                                                    34 PAATDRNPIGSSSRØSSSSAMSSSSSASSSPAASLGSØGSGLEØSSFØWSPSCERTOSLYC 93
                                                                                                                                                                          28 PPAGERPPLI CERRSA ----AERSARGOPGAQI API HC1------i PRPQLYC 71
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                                                                                                                                                                                                                                                                                                                                                                                                      268 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                      29183 MW,
                                                                                                                                                                                                                                                                        29.0%; Score 324; DB 1; Length 268; 40.8%; Fred. No. 3.4e-23;
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PSGP -> LGA (IN REF. 2).
: 2399755118565150 CAC64;
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   This SWISS PROT entry is copyright. It is produced through a collaboration between the SWISS Institute of Bioinformatics and the EMBL outstation the Furopean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   adult central nervous system.";
Proc. Natl. Acad. Nel. U.S.A. 87.8022 8026(1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hobert J.M., Basilico C., Goldfarb M., Hamb O., Martin G.K.;
"Isolation of chNAs encoding four mouse FGE family members and
characterization of their expression pufforms during embryogenesis.":
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MELELINE SUZDISAS: PubMed 2318343;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bikaryota: Metazoa: Chordata: Craniata: Vertebrata: Enteleostomi:
Mammalia: Entheria: Rodentia: Servroquathi: Muridae: Murinae: Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (Mouse)
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of NOV 1997 (Ref. 45, Last annotation update)
FIRRORIASE SEANTH FACTOR'S PROPURSOR (FGF-5) (HRGE-5).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PISASA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDILINE 91045929; PubMed 1700424;
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                                                                                                                                               PRINTS: PRODZ62: HERBER.
PRINTS: PRODZ63: HBGFPGF:
PROSIE: PSODZ63: HBGFPGF: L.
Transforming protein; uncodency Growth tactor; Mitogen; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; M30643; AAA56658.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                or send an email to license isb-sib.ch).
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SEQUENCE
                                 CARROTAL
                                                        NIVWOOL
                                                                                                                           STONAL
                                                                                                                                                                                                                                                                                  Plan: Proofs/: Pit:
                                                                                                                                                                                                                                                                                                                luterPro;
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                                                                                                                                                                                                                                                                                                                                                                                                    HSSP; POUCSB; IBFC
                                                                                                                                                                                                                                                                                                                                                                                                                                               PIR; B37360; B37360.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBI.; M37821; AAB02659.1; ALT_SEQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          M47822;
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   264 AA:
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AAB02660.1; JOINED.
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59
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      29103 MW;
N LINKED (CHANGE . . .) ()
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                                                                                                                        POTENTIAL
                                                                                             FIBROBLASI GROWTH FACTOR-5
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Smory Match Best Local Similarity

28.7%; Seede (21; 1811; 40.3%; Prod. No. 6.4e-23;

Length 264;

Query Match
Rest Local Similarity

28.5%; Score 319; DB 1; 41.1%; Prod. No. 8.8e-23;

DB 1; Length 239;

Matches

Conservative

29:

Mismatches

Section

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SEQUENCE
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01-007-1989 (Rol. 12, Last sequence update)
15-JUL-1999 (Rol. 48, Last annotation update)
INT-2 PROTO-UNCOCENE PROTEIN PRECURSOR (FIRROBLAST GROWTH FACTOR 3)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                F.CI.3
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Prooks S., Smith P., Casey G., Di
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (Human).
Enkaryeta; Metasoa; Chordata; Craniata; Vertebrata; Enteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (FGF-3) (HBGF-3).
FGF3 OR INT2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Oncodene 4:429-436(1989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Prooks 9 , smith P , Casey G , blokson C., Peters G.:
"Sequence organization of the human int-2 gene and its expression in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
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                                                                                                                                                                                         PRINTS; PR00262; ILLHBGF.
PRINTS; PR00263; HBGFFGF.
PR051TE; PS00247; HBGF_FGF; 1.
                                                                                                                                                                                                                                                                                          InterPro; IPR002348; Pfam; PF00167; PGF;
                                                                                                                                                                                                                                                                                                                                                                                          MIM; 164950; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the SWISS Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 teratocarcinoma cells."
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                                                                                                SIGNAL
                                                                                                                           Glycoprotein.
                                                                                                                                                          Transforming protein; Oncogene; Growth factor; Mitogen; Signal:
                                                                                                                                                                                                                                                                                                                                                    InterPro: IPR002209;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        PIR; S04742; S04742.
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-1- SIMILARITY: BELONGS TO THE HEPAKIN-BINDING GROWTH FACTORS FAMILY.
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                                                                                                   POTENTIAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismuteics
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the European Bioinformatics Institute. There are no rest
use by non-profit institutions as long as its content
modified and this statement is not removed. Usage by an
                                                                                                                                                                                                                                                                                                J. Cell Sci. Suppl. 13.00 NOLVED IN EAR DEVELOPMENT -1- INDUCTION: COULD BE INVOLVED IN EAR DEVELOPMENT TURN -1- INDUCTION: BY INTERNATION OF THE HEPARIN-BINDING GRO
                                                                                                                              entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to licensesisb-sib.ch).
                                                                                                                                                                                                                                this SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss lustitute of Bioinformatics and the EMBL outstation -
                                    MGD: MGI:95517; Fqt3.
                                                                                                                                                                                                                                                                                                                                                                                          "Characterization of int-2: a member of the fibroblast growth factor
                                                                                                                                                                                                                                                                                                                                                                                                               Dickson C., Aciand P., Smith R., Dixon M., Deed R., McAllan D Walther W., Fuller-Pace F., Kleter P., Peters G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        growth factors.";
EMBO J. 7:1013-1022(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Smith R., Peters G., Dickson C.;
"Multiple RNAs expressed from the int-2 gene in mouse embryonal carcinoma cell lines encode a protein with homology to fibroblast growth factors.".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-WV-1988 (Rel. 09, Created)
01-WV-1988 (Rel. 09, Last sequence update)
01-WV-1998 (Rel. 09, Last samulation update)
INI-2 PROID-CHOSCIENE PROIENT FEECURSOE (FIEWORLAST GROWTH FACTOR 3)
                 InterPro:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDILINE 91193291; PubMed 1964688;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 1-73 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Sequence, topography and protein coding potential of mouse int-2: putative oncogene activated by mouse mammary tumour virus.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDITNE 96247592; FubMed 3013624; Moore R., Casey G., Brookes S., Lixon M., Peters G., Dickson C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata, Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDILINE-88296404; PubMed-2841106;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBO J. 5:919-924(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (FGF-3) (HBGF-3).
FGF3 OR FGF-3 OR INT-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHARACTERIZATION.
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    INJUCTION: BY INTEGRATION OF HOUSE MAMMARY TOMOR VIRUS.
    SIMILARITY: BELONGS FO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.

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                                                                                                YU0848; CAA68767.1;
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                                                       P09038; 2BFH.
IPR002348;
              IPR002209;
                                                                          TVMST2.
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Best Local :
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01-NCV-1997 (Rel. 35, Created)
01-NCV-1997 (Rel. 35, Last sequence update)
01-NCV-1997 (Rel. 35, Last annotation update)
FIBROBLAST GROWTH FACTOR-14 (FGF-14) (FIBROBLAST GROWTH FACTOR
                                                                                                         InterPro; IPR002209;
                                                                                                                                                                                                       MIM; 601515;
                                                                                                                                                                                                                                                                                                                                                                                entities requires a license agreement (See http://www.isb-Sib.eh/annonnee/or send an email to license@isb-sib.eh).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Smallwood P.M., Munoz-Sanjuan I., Tong P., Macke J.P., Hendry S.H., Gilbert D.L., Ospoland N.G., Lonkins N.A., Nathans J.; "Fibroblast growth factor (FCF) homologous factors now members of the FCF family implicated in nervous system development."; Proc. Natl. Acad. Sci. U.S.A. 93:9850-9857(1996).

-i- FUNCTION: PROBABLY INVOLVED IN NERVOUS SYSTEM DEVELOPMENT AND
                                                                                                                                                                                                                                                                                                 EMBL; U66200; AAB18916.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the European Bioinformatics Institute. There are no restrictions on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss institute of Bioinformatics and the EMHL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (Human).
Pakaryota, Metazca, Cherdata, Chantata, Vertebrata, Entele
Mammalia; Euthoria, Primatos, Çatarrhini; Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE 96382556; PubMod 8799420;
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PRINTS: PR00263: HBGFFGF
PRO051TE, PS00247, HBGF_F0
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TISSUE SPECIFICITY: NERVOUS SYSTEM.
SIMILAPITY: RELOWING TO THE HETARIN BINDING GROWTH FACTORS FAMILY.
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) /UU94FU6A?637C79 CRC64;
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Growth factor. Pfam; PF00167; FGF;

PROSITE: PS00247; HBGF\_FGF; 1.

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SEROW HARA
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overy Match 27.9%; Score #12; DB 1; I
Best Local Similarity 42.9%; Pred. No. 4.1e-22;
Matches 63; Cambervative 41; Miamatches 49;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIINE 1638255; PubMed 8790420; Smallwood P.M., Muroz Sanjinan I., Jong P., Macke J.P., Bendry S.H., Gilbert D.J., Copeland N.G., Jenkins N.A., Nathans J., "Elbroblast growth factor (FGF) Lomologous factors: new members of the FGF tamily implicated in nervees system development."; Proc. Natl. Acad. Sci. U.S.A. 93:9859(1996).
-1 FUPPTION: PSYGREY EMPLICE: IN MERCECO CYSTEM DEVELOTMENT AND FUNCTION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ul NoV-1997 (Rel. 5, Created)
Hi-NoV-1997 (Rel. 5, Last sequence update)
UL NOV-1997 (Rel. 5, Last annotation update)
FIREFELACT SEGMIH PACTOR 14 (FGE 14) (FIREOSLAST GROWTH PACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities required a license adjudged (Sec http://www.isb.sib.ch/accorders)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEPHENCE 217 AA: 27782 MW, 4270337313689678 (DATG4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       or Send ab email to licensewish sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryotu: Metazoa: Chordata: Charrata: Vertebrata: Euteleostomi:
Mammalia: Eutheria: Rodentia: Sciurognathi: Muridae: Murinae: Mus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE SPECIFICITY: BRAIN AND TESTIS; WIDELY DISTRIBUTED IN THE DEVELOPING NERVOUS SYSTEM. IN ADULT, HIGH LEVELS IN THE GRANULAR LAYER OF THE CEREBELLUM, LESS IN HIPPOWAMPUS AND OLFACTORY BULB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEMILARITY: HELONGS TO THE HEPARIN BENDING GROWTH FACTORS PAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUBCELLULAR LOCATION: NUCLEAR (PROBABLE).
                                                                                                                                                                                      247 AA: 27764 MW; 372C5FCOBDC72FDA CRC64;
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